

Amendments to the Claims:

This listing of claims, in which Claim 1 is amended and Claims 34-50 have been added, will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A tubular wire support for combination with a sheath to produce a bifurcated endoluminal prosthesis, said tubular wire support comprising:

a main body support structure having a proximal end, a distal end and a central lumen extending therethrough, the support structure comprising at least a first and second axially adjacent tubular segments, each segment comprising a plurality of wall struts connected by proximal and distal bends;

a first branch support structure having a proximal end, a distal end and a central lumen therethrough connected to the main body support structure;

a second branch support structure having a proximal end, a distal end and a central lumen extending therethrough, connected to the main body support structure;

at least two sliding links in between the first and second segments; and

~~at least one lock on~~ each of the at least two sliding links configured for axial movement along a wall strut for limiting axial movement of a sliding link along that strut.

2-33. (Canceled)

34. (New) The tubular wire support of Claim 1, further comprising a tubular sheath on the wire support.

35. (New) The tubular wire support of Claim 2, wherein the sheath comprises a PTFE sleeve surrounding at least a central portion of the wire support.

36. (New) The tubular wire support of Claim 1, wherein the main body support structure and the first and second branch support structure are self-expandable from a radially collapsed state to a radially expanded state.

37. (New) The tubular wire support of Claim 1, wherein the wire in each support structure comprises a series of proximal bends, a series of distal bends and a series of struts connecting the proximal and distal bends to form a tubular segment.

38. (New) The tubular wire support of Claim 37, wherein each tubular segment comprises from about 4 proximal bends to about 12 proximal bends.

39. (New) The tubular wire support of Claim 1, wherein the first and second branch support structures are pivotably attached to the main body support structure.

40. (New) A tubular wire support for combination with a sheath to produce a bifurcated endoluminal prosthesis, said tubular wire support comprising:

a main body support structure having a proximal end, a distal end and a central lumen extending therethrough-and at least a first and second axially adjacent zig-zag tubular segments;

a first branch support structure having a proximal end, a distal end and a central lumen therethrough connected to the main body support structure; and

a second branch support structure having a proximal end, a distal end and a central lumen extending therethrough, connected to the main body support structure,

wherein the first and second segments are joined to each other by a plurality of sliding links.

41. (New) The tubular wire support of Claim 40, wherein the main body support structure and the first and second branch support structure are self-expandable from a radially collapsed state to a radially expanded state.

42. (New) An endoluminal prosthesis, comprising an elongate flexible wire, formed into a plurality of axially adjacent tubular segments spaced along an axis, each tubular segment comprising a zig-zag section of the wire, having a plurality of proximal bends and distal bends, at least one of the plurality of proximal bends and plurality of distal bends having loops thereon, with the wire continuing between each adjacent tubular segment, wherein the prosthesis is radially compressible into a first, reduced cross sectional configuration for implantation into a body lumen, and self expandable to a second, enlarged cross sectional configuration at a treatment site in a body lumen, and wherein at least some of the bends in one tubular segment are slidably connected to at least some of the wall sections in the adjacent tubular segment.

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43. (New) An endoluminal prosthesis as in Claim 42, comprising at least three segments formed from said wire.

44. (New) An endoluminal prosthesis as in Claim 43, further comprising an outer tubular sleeve surrounding at least a portion of the prosthesis.

45. (New) An endoluminal prosthesis as in Claim 44, wherein the sleeve further comprises at least one lateral perfusion port extending therethrough.

46. (New) An endoluminal prosthesis as in Claim 42, wherein the prosthesis has a proximal end and a distal end, and at least one of the proximal end and distal end are expandable to a larger diameter than a central section of the prosthesis in an unconstrained expansion.

47. (New) An endoluminal prosthesis as in Claim 42, wherein the prosthesis has an expansion ratio of at least about 1:4.

48. (New) An endoluminal prosthesis as in Claim 47, wherein the prosthesis has an expansion ratio of at least about 1:5.

49. (New) An endoluminal prosthesis as in Claim 42, wherein the prosthesis has an expanded diameter of at least about 20 mm in an unconstrained expansion, and the prosthesis is implantable using a catheter no greater than about 20 French.

50. (New) A prosthesis as in Claim 49, wherein the prosthesis has an expanded diameter of at least about 25 mm, and is implantable on a delivery device having a diameter of no more than about 20 French.